State of Oregon
Department of Environmental Quality

Memorandum

To: Mike White, Randy Smith, Ken Peddee and Greg Delwiche Date: April 9, 2003

From: Michael T. Llewelyn
Administrator, Water Quality Division

Subject: State of Oregon Position on Columbia River TMDL for Temperature

During our discussions regarding the Columbia River temperature TMDL, the issue of how TMDL's should reflect the existence of dams has been a critical concern. In order to clarify this issue, DEQ has discussed the issue with Governor Kulongoski's office. Based on those discussions, I am providing you with this memo which explains the State of Oregon's position relative to the "existence" of dams in the context of establishment of the TMDL for temperature.

Background

The Columbia River is listed on the 1998 303(d) list by both Oregon and Washington as not meeting water quality standards for total dissolved gas (air introduced into the water in a dissolved form as a result of spill at dams), temperature and a number of toxics. In 1999, DEQ entered into an agreement with EPA and the States of Idaho and Washington on development and completion of the total dissolved gas and temperature TMDLs for the Columbia and Snake River mainstems. Under the agreement, the States were to take the lead on the total dissolved gas TMDLs, and EPA was to take the lead on the temperature TMDL. Oregon and Washington completed the lower Columbia River total dissolved gas TMDL in 2002, and it has been approved by EPA.

EPA recently released a "pre-public hearing" draft of the temperature TMDL. EPA modeled the river using a "no dam" scenario to calculate a normative or natural temperature condition, and has assigned loads to achieve that. As I understand the situation, the federal dam managers (the Corps of Engineers and the Bureau of Reclamation) believe that the Clean Water Act does not envision the physical removal of dams to meet water quality standards and that dams should be assumed as a "background" condition in TMDLs. For the Columbia River, dams are the overwhelmingly dominant contributors of thermal warming above a natural condition (primarily through shallow, slow moving impoundments behind them heating up). The Corps and BOR raised significant concerns with EPA's draft TMDL. As a result, we have been involved in intensive discussions with EPA, the Corps, BOR, BPA, and representatives from the environmental agencies of Washington and Idaho.

Much of the success of this TMDL rests on an Implementation Plan that is being developed jointly by the States. Two senior-level meetings have been held between the States, EPA and the federal dam operators in February and March 2003. The meetings have enabled a full and frank exchange of views. The result has been a commitment to search out solutions to some particularly thorny problems to ensure the temperature TMDL moves ahead. Three major issues have emerged:

Certainty and Liability After the TMDL is Approved by EPA

The federal dam operators want certainty on what will be expected of them to meet the TMDL and a full indemnification against lawsuits if they follow the TMDL. The States have undertaken to provide greater certainty and to reassure the operators that their liability, while by no means removed, is lower with a TMDL than without one. On the issue of certainty, the States have reworked the Implementation Plan to provide increased certainty. We have detailed actions that should be taken upon which there is agreement, and have detailed studies and monitoring that need to occur over time to measure progress, but we are unable to specify ahead of implementation what water temperature is achievable. One of the major planks of the Implementation Plan, therefore is a multi-year monitoring, modeling and analytical study to characterize the dynamics of temperature increases and dissipation in a big river system, and to evaluate both the costs and benefits of various operational and structural changes.

The Place of Dam Removal as an Implementation Option

This has been a major stumbling block. The dam operators have singled Oregon out specifically, and pointed to the previous administration's position on dam breaching. It appears that while dam removal is a physical option, the federal dam operators are unwilling and politically unable to agree to this TMDL without an "upfront" statement by the states that the TMDL will not lead to dam removal. In advance of establishing that position, we have explored with the Corps and Bureau of Reclamation a distinction that was suggested some years ago by a Federal Advisory Committee on proposed TMDL rules to bifurcate dams as between their existence and structure/operations. By signaling that it is not the State of Oregon's position to remove the dams to address temperature standard attainment, we hopefully can move on and address more seriously what the federal dam operators can do to minimize temperature impacts through operational changes or dam modification.

Use Attainability Analysis

A Use Attainability Analysis (UAA) is a mechanism within the Clean Water Act that enables a state to modify on a site-specific basis, a water quality standard (e.g. temperature) as long as the designated use (e.g. salmonid migration) is still protected. The federal dam operators have asked that this take place now as part of the TMDL. The States have indicated that while this has not been a much-used feature of the Act, there is no reason not to explore it. However, the bar to gain EPA approval for a UAA is very high. Further, we have argued because we do not yet fully know what "final" temperature profile will be achieved given the reluctance of the operators to identify what actions they are willing to take, it is premature to undertake a UAA. In addition, we have indicated that a great deal of study (of the type we are suggesting in the Implementation Plan) is required before such a UAA could be submitted to EPA. In short we have indicated that this is a valid mechanism for this TMDL, but it needs to be undertaken after implementation has exhausted all the reasonable possibilities, not before.

A UAA in this case involves a demonstration that the social and economic dislocations brought about by dam removal are so great that a modified use is warranted for the Columbia River, and that a water quality standard (what is being achieved after all feasible implementation measures have been taken) should be established. Studies are required to demonstrate that the standard that is being achieved is the best that can be expected, and that there would be widespread economic and social dislocation as a result of dam removal. A public process is required at which the modified use and new water quality standard are subject to public review. The package is then sent to EPA for review, and hopefully, approval.

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Given this background,

1. The State of Oregon does not seek nor would we support breaching of the dams on the Snake and Columbia Rivers to meet the water quality standards established under the Clean Water Act. However:

2. The federal dam operators must develop an implementation plan under the TMDL which identifies and implements all technically and economically feasible options to operate the Columbia Basin hydropower system and individual dam operations to minimize the thermal impact of the dams.

I look forward to moving ahead with the finalization of the Implementation Plan so that the TMDL can be approved.

cc: Jim Brown – Governor's Natural Resource Office